Interstate Brick Company

October 25, 1984

James W. Smith, Jr.
Division of Oil, Gas and Mining
4241 State Office Building
Salt Lake City, Utah 84114

Re; Deficiencies to Approval of Koosharem Clay Mine Permit
ACT/031/002 Piute County, Utah

Dear Mr. Smith:

This letter, with the accompanying enclosures, should help remove the deficiencies in our application for an approved mining permit on our Koosharem Clay Mine. On a letter dated February 15, 1984 you listed a number of items needing attention before the Division could issue final approval for the Koosharem mine.

I apologize for taking so long in addressing your concerns. However, the items mentioned in your letter are condensed below along with our response.

#1. Updated Annual Progress Reports:
Updated reports for the years 1980, 1981, 1982, and 1983 were filed with the Division on March 8, 1984.

#2. Additional information as requested on a letter addressed to Bob Steele.

1. Soil sample analyses:
Samples of topsoil to a depth of several inches were taken at a number of different spots, combined, and submitted for analysis. The overburden was also sampled and submitted for testing because topsoil cover was so thin (about two inches). Results of analyses are enclosed.
2. More detailed description of grading, final cross section, etc. as requested on MR Form 2 item 11.
   a. Mining sequence:
   Mining sequence is very simple. An area of approximately five (5) acres was initially opened up. A portion of this was used to stockpile topsoil, clay and overburden. The remainder is occupied by the pit itself and access roads. Total current disturbed area is about six (6) acres. Since our annual consumption is only eight thousand (8,000) tons per year we mine approximately twenty five thousand (25,000) tons every third year. We will mine again in 1985. With low production like this the pit expands by only a few feet each time we mine.

9210 South 5200 West • West Jordan, Utah 84084 • (801) 561-1471

The mining sequence is outlined in brief below:

YEAR	ACTIVITY
1	Strip about ten feet. Stock pile or re-apply the topsoil. Mine and stockpile about 25,000 tons of clay. Remove about 8,000 tons to the plant. Reseed any reapplied topsoil.
2	Haul 8,000 tons of material to plant.
3	Haul 8,000 tons of material to plant. Start over with year 1.

b. Procedure for construction and maintenance of access roads including typical cross-section and profile:

Access is via Forest Service Road number 40069 (Box Creek Road). Typical grade and cross-section are enclosed. An agreement requiring yearly maintence has been signed with the Forest Service. Work done by grader and dozer as required. Pit roads will be of comparable width but grade may approach ten percent (10%).

c. Procedure for site preparation:

Topsoil will be dozed into pile. No special efforts will be made with requard to trees or brush, as only moderate coverage exists.

d. Method for stockpiling topsoil etc.:

Topsoil will be dozed in a pile in an area of low topographic relief. Overburden will be piled in such areas as is expedient.

e. Placement/containment of disturbed material:

1. Topsoil: Placed in area with low grade and away from drainages. Seeded if needed.
2. Overburden and clay: No special efforts needed. Both materials are very hard rock.
3. Toxics etc.: None

f. Final stabilization:

Disturbed materials left on site at end of mine life will be either backfilled into pit or regraded to no more than twenty (20) degrees, covered with topsoil, and reseeded. No significant erosional problems are anticipated.

GRADING AND REGRADING

a. Typical cross-section:

Spoil: Regraded to twenty (20) degrees or less
Pit: Aggregate slope not to exceed twenty (20) degrees. This to be achieved by benching, if required, using fifteen (15) foot benches. Pit depth is not anticipated to be very great.

b. Method of spreading and thickness of topsoil:
Top soil to be spread by front end loader and grader to about a one (1) inch thickness.

c. Soil treatment:
Seeding of disturbed and regraded areas will be done as mining progresses to see if mulch or fertilizer is needed. If a need is seen, mulch (straw) at two (2) tons per acre will be applied.

d. Drainage control:
Entire area is on top of a plateau of sorts and no major drainages run through the property. Graded surfaces exceeding fifteen (15) feet in length will have water bars cut to divert runoff into areas with established growth.

e. Maximum slope grade:
Maximum grade will be twenty (20) degrees.

3. Seed rates and augmentation with shrubs:
Seed rates are herewith doubled and suplemented with shrub as outlined below:

SPECIES	RATE (LB/ACRE)
Crested Wheatgrass	4
Intermediate Wheatgrass	4
Smooth Brome	4
Yellow Sweet Clover	4
Alfalfa	2
Bitterbrush (High Altitude)	2
True Mountain Mahogany	2

4. Test plots:
Test plots will be established by reclaming mined and unused areas as exposed. Concurrent reclamation will be done and revegitation efforts monitored. If a need is seen to use mulch or fertilizer these additives will be incorporated into the reclamation plan.

5. Use of fertilizer and mulch and reseeding:
If revegitative efforts on exposed lands reclaimed during the life of the mine indicate a need for either fertilization or mulching, or both, these will be used.
Interstate will reseed the revegetated areas, if necessary, prior to obtaining surety release.

6. Up dated map:
See enclosed updated map.

7. Storage of topsoil, clay and overburden:
Topsoil storage area is an area of low grade away from any significant drainages. Topsoil has or will have vegitative cover. Both clay and overburden are composed of hard erosion resistant rock and should present no problems. However, these materials will also be stockpiled on areas of low topographic relief and away from significant drainages.

8. Revegitation of topsoil:
Topsoil will be revegitation with perennial grasses if it has not been immediately reapplied to graded areas.

#3 BOND REVALUATION:

Evaluation of reclamation costs has been done on the enclosed bond estimate form. This estimate is higher than our current bond amount. We will increase the value of our bond upon completion of review and acceptance by the Division.

I believe that this information is sufficient and hope to obtain a valid mining permit in the near future. However if you need addiational information please feel free to contact me.

Thank you very much,

Ronald H. Baldwin

Ronald H. Baldwin

RHB/dp

Encls